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CLINICAL LECTURES.

FIBROMA OF THE BREAST; REMOVAL.—DEEP SEBACEOUS TUMOR OF THE NECK; REMOVAL.[1]

BY W. W. KEEN, M. D.,

PROFESSOR OF SURGERY, JEFFERSON MEDICAL COLLEGE.

Gentlemen: I ended my clinic last Wednesday with a case of scirrhus of the breast, which was ulcerated badly, and therefore was necessarily septic in its nature. The subsequent history, however, has been simply delightful. The patient wanted to sit up this morning, the fourth day. Her temperature, excepting immediately after the operation, has not been above 100°. You will remember also that the axillary glands were involved and I made a very thorough dissection of the axilla and removed all the fat and the glands all the way up to the clavicle; I removed also, you remember, all of the sternal portion of the great pectoral to which the tumor was adherent. I did this because Haidenheim has lately shown that here lies one of the most dangerous foci for return of the disease. The first case to-day is another tumor of the breast in which I shall pursue a different course. I believe the tumor is a fibroma. One year ago our patient noticed a lump the size of a marble in her left breast. This was associated with a throbbing pain which was chiefly present at night. The lump is now two-thirds the size of my fist, and the pain has increased some in severity. The woman is forty-two years of age, and is approaching the climacteric. Gentlemen, I am afraid of this tumor. Benign, or at least apparently benign, tumors of the breast are apt to become malignant at this patient's age. I make it a rule to remove them, for the

[1] Delivered at the Jefferson Hospital.

operation is not dangerous and I believe the tumor is. I shall remove it, therefore, and with it, since she is passed the age of lactation and is approaching the climacteric, I shall remove the entire breast. Having resolved to do this, there now comes a question about the axillary glands. As far as I am able to ascertain at present, there are no enlarged glands there, but if the enlargement of these glands has not reached any marked degree, it is absolutely impossible before operation to say whether or not such enlargement exists. Hence, I shall first remove the breast and then cut it open to determine by the eye as far as I can whether the tumor be malignant or benign. I shall then make an incision into the armpit, into which I shall insert my finger and thus ascertain whether or not the glands are enlarged. As I have already said, it is easy to overlook them unless we examine beneath the skin. If I find any enlargement, I shall dissect the axilla and remove the fatty tissue and glands all the way up to the clavicle. The first step is to remove the breast, and I shall then be guided by the results of my examination.

You can now see that the nipple is not retracted in the least. When I seize the gland you will all notice the tumor. If the patient were a young girl, nineteen or twenty years of age, I would try the effect of time and of sorbefacients and if they failed in two or three years then I would remove only the tumor; but since she is forty-two years of age, I shall remove the whole breast. I make here an elliptical incision, including the nipple, which you should always do in removing a breast. I now dissect out the gland. I shall not remove the muscle here, as I did in the last case, for the breast is not adherent and the tumor is probably not malignant. Notice, by the way, that I have wrapped up her head in a bichloride towel. I always do this, as the hair is a fertile source of infection. You will observe that as I have handled the patient's clothing I again disinfect my hands. This should always be done after touching any portion of the body or clothing not disinfected. This leads me always to wrap the patient's arm in bichloride towels that they may be handled with safety and if in her struggles at any time she touches the wound it will not be infected. Grasping the skin with forceps and using this as a handle, I dissect up the skin, being careful to remove every portion of the breast. In the upper portion, where the tumor lies, I am particularly careful not to encroach upon the gland. I can now get behind the gland very readily with my thumb, and am right down upon the pectoral muscle. Here is the entire breast which I have peeled out very quickly, and here is the tumor. It is intensely hard, even harder than is scirrhus, as a rule. Cutting through a portion of the breast itself you can contrast its appearance with that of the tumor. I have no doubt of its fibrous character. I am now going to investigate the armpit. Now you see, by passing my finger under the pectoral muscles, with the bimanual examination I can reach all the way up to the clavicle, and I find that no glands are involved. I shall, therefore, not clear out the axillary fat and glands.

Now as to drainage. A large cut will heal in a great deal shorter time if we put in sufficient drainage. I shall enlarge this opening, then, to the bottom of my wound, so that there shall be no pocket here. All of the small vessels I catch with hemostatic forceps. Forcipressure answers the purpose well in the case of small vessels, but larger ones I always tie. Notice how dry the wound is. I have used no sponges whatever, but pieces of bichloride gauze in their place, packing them into the wound at point after point where I have completed the dissection. This is the "dry method" lately introduced by Landerer, and I have been using it for some time with great satisfaction. It excludes also all "flushing" of the wound with antiseptic solutions. Next I shall proceed to insert the stitches. You will observe that I always have two needles ready. This saves much time, for while I am applying one, Dr. Horwitz is arming the Abbe needle-holder with the next one. I shall put in a rubber drainage-tube, and a bundle of horse-hair for drainage in addition. I always put in a few stitches at first, as they serve to hold the tube in position. For my suture-material I am using silk which has been first boiled and then placed in a carbolic acid solution and kept there permanently. For tying the arteries I used juniper catgut, which need not be removed, as it is dissolved in a few days. When I am able to bring the skin together so completely as in this case, I expect my patient to be perfectly well in one week's time. I shall put on an abundant dressing to absorb the free oozing of the first twenty-four hours. Over this I lay a piece of "rubber dam," and over this I put some

antiseptic "globe" wool, which I prefer to cotton since it is elastic and never packs. I place firmly around the chest a flannel binder; and then, laying the arm across the chest I put on another binder to secure absolute rest. A suspender is put on to prevent slipping, and the dressing is complete. To-morrow I shall dress the wound again and remove the drainage-tube, leaving the horse-hair *in situ* for the escape of the slight later serous oozing. I shall dress it again on the fourth or fifth day, removing then the horse-hair and the alternate stitches. I expect to show the case to you one week from to-day with the wound entirely healed. [Note.—One week later the wound was well and the remaining sutures were then removed.]

The next case I bring before you is what I believe to be a cystic tumor underneath the jaw. The patient is a man, who tells us that the tumor has been here for a number of months. It presents itself just under the side of the jaw, is soft and elastic, and therefore, I believe, cystic. Still, it is very difficult to make a diagnosis as to the nature of a tumor appearing in the neck. Very often we find that we have been quite wrong in our conclusions. Whatever it is, however, it shall be removed. I shall make a small incision, and dissect it loose. It appears to be the size of a lady-apple. I must be careful of the arteries in this region. There is the facial just behind the tumor, and the lingual is near it, and it may run down to the superior thyroid. Still it really makes but very little difference, for the hemostatic forceps will stop any bleeding which may occur. In the way of mechanical contrivances, the hemostatic forceps is the most important advance made for many years. But I would give you one word of caution, and that is in buying your forceps see that they have good substantial handles which will not bend.

I make my incision where the jaw will cover it, and especially the beard.

I have now divided the platysma myoid muscle, and shall proceed very cautiously to avoid entering the cyst wall. I am in a little doubt here as to what I have to deal with. This is the submaxillary gland, and the tumor is beneath it. The gland is not involved. I find now that there is a deep-seated cystic tumor underneath the gland. The gland itself is unaltered. The thin wall of the tumor has ruptured and its contents are sebaceous in nature, though so soft as to render the tumor practically cystic. I must now be careful to remove the whole of the sac. If this were not done we would quickly have a reproduction of the tumor. Here I have the entire cyst removed, but in doing so I have come down even to the hyoid bone and the base of the tongue. Catching now all bleeding points, I replace the submaxillary gland, put in my drainage-tube and horse-hair and proceed to insert my stitches as in the last case.

You will naturally ask how a sebaceous tumor which arises in the sebaceous glands of the skin can lie so deeply. Though only noticed of late, this tumor is undoubtedly congenital. In the fetal development of this patient an invagination of a minute portion of the skin has occurred and hence the cyst. These invaginations arise occasionally in the neck, at the angle of the jaw, near the orbits, etc., and give rise to sebaceous cysts like this and more rarely to dermoid cysts, which again are an evidence of their cutaneous origin. [Note.—The patient was out of bed the next day and discharged well in a week, the redressing having been similar to that of the last case.]

UMBILICAL HERNIA.—TEAR OF PERINEUM—RESTORATION OF ALL PARTS EXCEPT THE SPHINCTER ANI MUSCLE.[1]

BY BARTON COOKE HIRST, M. D.,

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Gentlemen: The first case I have to show you is one which is frequently encountered in practice, namely, a minor grade of umbilical hernia in the new-born infant. This condition is observed in about two per cent. of all infants. It must be distinguished from the graver cases where there is an absolute lack of integument, and the abdominal contents are only covered by a thin layer of the amnion. The minor form is very amenable to treatment, disappearing in from six to eight months. The treatment consists in applying a perfectly even and firm pressure to the protruding umbilicus, and continuing this until the opening is closed. Pressure is best exerted by some

[1] Delivered at the Philadelphia Hospital.

flat, hard substance of an unirritating nature, which does not protrude into the opening. This will return the hernia and keep it in place, while not preventing closure of the opening. It is a common custom to use a conical piece of cork or other hard substance for this purpose, which, while it reduces the hernia and retains it in position, does not permit the closure of the opening in the abdominal wall. This is an illogical and unsuccessful plan of treatment. The edges of the substance employed should reach beyond the margin of the opening. A hard rubber button, about one inch in diameter, having a plane surface on one side and a slightly convex surface on the other side, is the best support. For this contrivance we are indebted to my friend, Dr. Walter Chrystie. Another means which answers just as well is the ordinary poker-chip held between two layers of adhesive plaster, and firmly applied over the umbilicus. There is one important precaution to observe. As the pressure must be applied so long, it is important to use some adhesive substance which will not irritate. The ordinary adhesive plaster of the surgeons is the best for this purpose, and can remain on the skin for months without producing any irritation. If the child is bathed daily, in two or three weeks or a month when the plaster is removed, the skin will be found healthy. The rubber or porous plasters will not answer, as they irritate the skin and produce a soreness which requires an intermission in the treatment, and consequently retards the cure of the case. The plaster should be made long enough to go two-thirds of the way round the child's abdomen. This can be reduced as the case improves until all that is needed will be a small strip across the umbilicus.

Complete Perineal Tear, with Restoration of all the parts, except the Sphincter Ani Muscle.

The next case I show you is a very interesting one. This woman came here two or three days ago requesting us to sew up her perineum. This surprised us, as it is unusual for such a request to be made. On examining the woman superficially I discovered nothing whatever out of the way, and consequently was at a loss to understand the woman's anxiety to be operated upon. On questioning her further, however, I found that she had had only partial control over the action of her bowels since a confinement some years ago; that one year ago she had been operated upon for hemorrhoids, and that since then there had been absolute incontinence of feces. I examined her again, and found that at one of her labors she had been torn into the rectum. The tear had been operated upon, but the sphincter muscle of the anus had not been included in the sutures and it was now lying across the posterior surface of the anus as an almost perfectly straight band. All of the structures between the posterior commissure of the vulva and the anus had been torn through, but all had united except this muscle. The hemorrhoids had doubtless acted as an anal plug and had, to some extent, masked the absence of a sphincter.

This condition is one which can be easily repaired, and this morning I shall do this before you. I shall cut, with a pair of scissors, through the tissues between the vagina and rectum, and then shall sew them up as should have been done at first. I shall first cut perpendicularly through the recto-vaginal septum; then I shall turn the knife perpendicularly to this incision and cut outwards towards the tuberosity of the ischium. Then, in order to bring together the deepest portions of the wound, I shall insert two or three tiers of catgut stitches, leaving two tiers buried out of sight. In this way I shall secure apposition throughout the whole extent. This is a modification of Tait's operation. Without this precaution of securing complete apposition, the majority of these Tait operations are unsuccessful. I shall take the additional precaution here to reinforce the catgut sutures with a silk-worm gut stitch inserted through the whole depth of the wound, as I am afraid to trust alone to the gut. By passing the unabsorbable silk-worm stitch, and shotting it, I reinforce the action of the other stitches and prevent any danger of the tissues coming apart from the too early absorption of the continuous catgut sutures.

The woman has had a vaginal douche of bichloride solution, and I shall also bathe my hands in the bichloride wash. The light in such operation should be horizontal as well as perpendicular in order to secure the best results. The feel here is very curious and characteristic. Here lies the sphincter muscle, sprung out so that it has lost its shape, across the posterior or under surface of the anus. There is a constant flow of feces, but the destruction of the sphincter prevents that sudden discharge of

feces which makes these operations so unpleasant at times. I will proceed now, in some degree, with the flap-splitting method of Tait, thus permitting me to secure the ends of the muscle. I now have these ends free and shall proceed to insert my sutures. In passing the stitches near to the rectum, one must be careful not to pass them through the mucous membrane, or else he might have recto-vaginal fistulæ following the tracks of the sutures. An important precaution to be observed in using catgut sutures is not to put them into water before using, as this makes them too absorbent and too rotten. In operations upon the anus, it is impossible to keep the instruments out of the feces, but, fortunately, this is not a malignantly infecting substance. You can often put the ends of the catgut sutures to good use by placing them in the lower border of the wound, as I am now doing, where they will act as drains. The wound I have made here is so small—though quite large enough to answer my purpose—that I will not insert many of the catgut sutures. In order to secure the ends of the muscle firmly I insert my stitches at this point very deeply. The angry appearance of the rectal mucous membrane which you see here is very characteristic, and is due to the eversion of the edges, the result of the laceration of the muscle, with irritation from the consequent exposure. I believe, now, that I have thoroughly drawn the edges of this muscle together, but to make sure, I insert now one more very deep suture, running my needle down so as to firmly embrace the ends of the muscle.

The after-treatment of these cases is troublesome, as I must keep the bowels bound with opium for several days, and this, of course, acts unfavorably upon the woman's general condition. However, if they were allowed to be opened, the newly-united muscle would be torn apart. I shall now put my reinforcing stitch directly through the ends of the muscle. As you see, I have so diminished the calibre of the anal orifice that I cannot introduce my forefinger into it. The relief afforded such persons by this operation is really wonderful. Some time ago I operated on a woman in Trenton who for over eight years did not dare to enter a public conveyance for fear of involuntarily evacuating her bowels. Her husband's affections had become estranged, and from mental anxiety and lack of exercise her general health was wretched. The operation was a success and to-day she is a changed woman. The recto-vulvar septum only, here, as you see, has been involved in this operation, as I did not enter the vagina at all. I shall now give her an opium suppository to confine her bowels and relieve the pain she will have from the constrained lithotomy position in which she has been held.

COMMUNICATIONS.

PNEUMONIA: WHAT IS IT?

(FIRST PAPER.)

BY HIRAM CORSON, M. D.,

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In the *Journal of the American Medical Association* Dr. Edward F. Wells has, in eight numbers, issued between February and October of the year 1889, occupied seventy columns with a history of pneumonia, under the name of "Pneumonic Fever." He gives the names of about fifty eminent persons who, during the last five centuries, have written elaborately on the subject; and in about a thousand marginal notes refers his readers to the various papers written in relation to the disease; and even more than all this, ofttimes a single marginal reference embraces five, ten, or even a hundred papers by different persons on the special subject that he is considering. Dr. Wells takes his readers back 440 years, through the 15th, 16th, 17th, 18th centuries, and to the year 1888 in the 19th century. It is a wonderful record, and were it in pamphlet form, would be invaluable for reference to all that has been written on the subject of pneumonia. In this country we occasionally hear of this disease being epidemic, though there be only a few cases in a small town. Dr. Wells takes no notice of such cases, but gives to his readers the epidemics reported by all writers since the year 1440. Every country in the world has suffered from these epidemics; some of them frightfully. The epidemics, too, were widely different in the symptoms presented and in the lesions found after death. It is due to Dr. Wells to say that, in referring to some of these malignant epidemics, he writes: "Accounts of such outbreaks come to us from very remote times, although there must always remain a doubt whether the great epidemics of which we read were really pneumonic in their nature." I cannot give even a synopsis of this

remarkable paper, which gives all the various names which have been applied to the affection, its character, prevalence and fatality, and the theories concerning its nature for more than four centuries.

The author, in an apparently candid and impartial manner, has treated of the *change of type* said by those who denounce bloodletting to have taken place within the last forty years, and which change they regard as showing that the disease is less sthenic in character, and therefore no longer admits of the use of the lancet. He does not believe in such change. He sums up thus: "From these facts I am of the opinion that there has been no actual change in the type of this disease, and that the pneumonic fever of to-day is that of our fathers and of past ages, and will be that of future generations." After a careful study of all that has been written on the malady in relation to the mooted question of its local or its constitutional origin, he says: "In my opinion pneumonic fever (by which he means our pneumonia) is a general disease with a local manifestation in the lungs." He follows this by some reasons for the conclusion. He also says quite fearlessly—knowing that he is on the popular side—"there can be no doubt as to pneumonic fever—epidemic as well as sporadic—everywhere and always being due to the action of a single, peculiar and specific morbific material, which, in the case of epidemics, is fed up to a point of intense virulency and may act upon a population less able to withstand its onslaughts."

Now, although he has given this as his opinion, he has been fair enough to give us the opinions of others of great experience with the disease, who differ with him. He says: "During the first three decades of the present century—until 1830—Paris was the medical centre of the world, and the views of Laënnec, Andral and Chomel—the great triumvirate of the French school—are worthy of particular attention, because they were probably those of the great mass of physicians of that day." I will give their conclusions briefly: "Laënnec considered it a pure local inflammation." "Andral is not so clear in his statements . . . is inclined to think it, in *most* cases, a local inflammation." "Chomel evidently considers it a local inflammation." "Copland defines it as an inflammation and its consequences in the parynchema of the lungs, often complicating the small bronchi and air cells on the one hand, or the pleura on the other more particularly or exclusively." "Trosseau considers it a local affection; the local phenomena generally open the scene, and the general symptoms continue along with the local phenomena." "Davis"—he refers, I suppose, to Dr. N. S. Davis, of Chicago—"is perhaps the only author of wide reputation who yet holds pneumonic fever to be a local inflammation and can perceive no evidence of specific poison." Not a bad array of persons who believe in the local origin; combined they should have almost as much weight as Dr. Wells. I hope we need not depend exclusively on the opinions of Frenchmen, Germans and Italians. Dr. Wells is probably too young to have had personal knowledge of the eminent author and successful practitioner, Professor George B. Wood, of Dr. Physick, the renowned surgeon, of Hartshorne, the elder Parrish, Chapman, Samuel George Morton, Alfred Stillé, H. H. Smith, the younger Henry Hartshorne, the Hodges, Meigs, and others, of Philadelphia, all distinguished authors and practitioners whom we know and who regarded blood-letting in pneumonia as the essential remedy in its treatment and that of acute inflammations generally. I have not forgotten Prof. Samuel D. Gross, but defer calling him up now. Of those named, who are still living and who have practiced during many years, not one but will—even in "the maddening maze" of things by which the practice of medicine is now surrounded—testify to the wonderful relief which they have often seen come to patients by the abstraction of blood, when they were ill with pneumonia. But what is such testimony worth to those who have never seen blood drawn from patients whose lungs were congested and who were threatened with suffocation? And still more, too, those who have had teachers—as ignorant of it as themselves—drumming into their ears day after day, for two or three winters, warnings against the "murderous blood-lettings;" and who have read in Dr. Wells's paper that "Davis is the only author of wide reputation who holds pneumonia to be a local disease, and is favorable to venesection"?

Who, then, let us inquire, is the man called "Davis" by Dr. Wells, who has not abandoned blood-letting in pneumonia to embrace the new views? Fifty years ago he was a country doctor, practicing his profession in the State of New York, and vividly do I remember how my heart warmed to him, when forty-five years ago he awak-

ened the profession of the whole country to the importance of having county, State and national medical societies. Nor less vividly do I remember that there were those, in our great medical centres, who were disposed to sneer at his idea of gathering the members of our profession into one harmonious body; because his name was unknown to fame, and Binghamton was but a country village. It seemed to them more fitting that it should have originated with the eminent men in one of the great cities. But N. S. Davis was not the man to be disheartened, and he therefore bent himself to the great work before him with a zeal and nobleness of purpose which brought to his side the thinkers of the profession, and everywhere county and State societies sprang up as if by magic, and in 1847 his labors were crowned by a meeting of delegates from State societies, and the American Medical Association—the work of Dr. N. S. Davis—was given to the world. What it has done for our profession let its "Transactions" during forty years testify.

This, then, is the man Davis—the Father of the American Medical Association; who, "after practicing ten years in the State of New York, where the winters were cold, and during which time pneumonia, pleurisy, bronchitis and rheumatism were frequent, and uniformly of the sthenic type, bled freely, and sometimes twice, and gave, internally, sedative doses of tartar emetic, with alterative and anodyne doses of calomel and Dover's powder; and the relief to the patient was *always* well marked, and sometimes so decisive as to render the amount of exudation in the second stage unimportant, and to enable the patients to be up and dressed, with all the indications of complete convalescence, on the fourth or fifth day." But this man Davis, after an experience of ten years with the sthenic patients in a hilly, rugged region, free from malaria, and supplied with pure air and good water, near the northern line of Pennsylvania, saw the disease for two years while residing in New York City, and since then has encountered it in his practice for forty years in the city of Chicago, where, as the very head of the profession, he had ample opportunities to see pneumonia in sthenic as well as in asthenic cases, which so abounded in that then malarial city.

And here let me pause in this narrative to say that our brethren speak of those who resort to venesection, in cases of heavy congestions or acute inflammations of the lungs as though we depend upon and resort to blood-letting in all diseases and under all conditions of the system. For sixty-two years I have been a witness to the practice of those who resorted freely to the use of the lancet—and with a confidence inspired by numerous successes, and yet the great majority of these patients, ill with the current diseases, were treated without the abstraction of blood. But they did not stand by the bedside of patients threatened with suffocation, and depend on a few drops of some arterial sedative; but instantly gave them relief by unloading the lungs, and allowing the atmospheric air to enter the cells.

A faithful Laënnec, Chomel, Andral, Copland, Trousseau, and all the authors of the times for the past half a century in our own country who, after close observation of the disease which is now so dreaded and so destructive under the reformed treatment, regarded it as a local inflammatory disease of a vital organ, and successfully treated it by the lancet and the therapeutic measures then in vogue, are regarded by Dr. Wells as holding "doctrines and practices which reached their greatest ascendancy during the tyrannical reign of the lancet."

Dr. Davis still lives, with a clear, unclouded intellect; a giant in his profession, and can truthfully testify that the treatment of such cases as those which, during fifty years have been so successfully managed by blood-letting in his practice and in the practice of his contemporaries, is just as applicable and successful in the same kind of cases to-day.

Within the past year an eminent physician of Philadelphia told me that if he were suffering from pneumonia he would rather let it take an undisturbed course than to trust to the treatment of any physician in Philadelphia under fifty years of age. And yet these are the *lads* who talk so blatantly of the murderous blood-letting treatment of which they are utterly ignorant. There are hundreds of physicians still living, who, like Dr. Davis, have seen the prompt and efficient relief produced by the treatment practiced in that fearful era, so graphically described as the "tyrannical reign of the lancet," who can truthfully declare its value, and who have witnessed with sorrow the fatality of the present treatment, so lauded by men who never knew any other treatment. With the latter Dr. Wells no doubt belongs, and though utterly ignorant of the effect of blood-letting, he is bold to denounce it.

Ought we not to have as much confidence —aye! more confidence, in the testimony of hundreds of practitioners who pursued that treatment during half a century, and were witnesses to its success, than in those who have never witnessed its effects, but cry out that the disease has changed its type, has assumed a typhoid character which forbids blood-letting? Is it not impertinence in them to disregard the testimony of Drs. Davis, Traill Green, John and Washington Atlee, Samuel D. Gross, Samuel Jackson, of Northumberland, George B. Wood, Nathaniel Chapman, and scores of others of undoubted truth? Do these men lie? If not, why disbelieve them? Why call their treatment murderous? Are they ignorant of the theories or views of the disease which prevail now, and of the popular use of remedies so depressing—not to say poisonous to the system—that patients treated with them often die in three days, or even in a shorter time?

Our people are daily saddened by the sudden deaths of our most prominent men, all over the States, from pneumonia under the present too fatal treatment, and of which I may speak more in my next paper. The men of whom I have spoken as having confidence in the treatment now so universally denounced are all well known to every well informed physician, and yet their words are treated with contempt by the teachers of the present day. I may give respectful attention to *them* hereafter.

THE EXCESSIVE DEATH-RATE AMONG INFANTS AND HOW IT CAN BE REDUCED.

BY PETER McCAHEY, M. D.,
PHILADELPHIA.

During the years 1886, 1887 and 1888, there were 70,558 living children born in the city of Philadelphia. During the same period 19,137 children under the age of two years died within the city limits. There was no epidemic of small-pox, scarlet fever or diphtheria in these years, and the proportion of deaths to births may be considered fairly normal. In other words, more than one-quarter of the children born in the city of Philadelphia die before they are two years old. The ordinary rate of mortality during two years of adult life is 16 per thousand. The infantile mortality during the first two years of life is 270 per thousand, or 17 times that of adult life. It is doubtful if the slaughter of the innocents, ordered by Herod, or the loss of the first-born in every Egyptian family which followed Pharaoh's refusal to let the Chosen People go, much exceeded this annual slaughter of infants which occurs without comment in every city and village in the United States. Yet the latter is less excusable than either of the former. For while the people of Bethlehem were powerless to resist the mandate of Herod, and the Egyptians were unable to soften Pharaoh's heart or to guard against the mysterious approach of the avenging angel, every family and every physician have it in their power to reduce this unnecessary and enormous death-rate among infants. It would be chimerical to think that it can be reduced to that occurring among adults, but any reduction—no matter how small—means not only a diminution of suffering to the individual and the family, but also a direct gain to the State. It has been estimated that every adult is worth $2,000 to the community in which he lives. Ten thousand lives cut short before maturity is reached is therefore a direct loss to the State of two million dollars. It is impossible in one brief article to point out all of the causes of the excessive infantile death-rate. Many of them may never be ascertained. All of us have seen infants which seemed to be born but to die. There are many causes, however, which can readily be pointed out, and which are responsible for an enormous number of infantile deaths. Some of them begin at the moment the child is born, others do not become operative until weeks or months afterwards. They may all be summed up under the general terms of bad management and improper and insufficient feeding. How often it is the case that, as soon as the child is born, the cord is hastily cut and tied, and the child is handed to the nurse, who in a cold and fireless room leisurely proceeds to wash it in tepid water, from ten to fifteen minutes being consumed in this proceeding, at the end of which time the unfortunate chlid is shivering from the cold, and is chilled through. It is then still more leisurely dressed, put in bed, and an hour or more elapses before it becomes warm. The next day and the day following and every day thereafter, regardless of the season of the year, or the temperature of the day, the baby is stripped and again bathed from head to foot, and chilled again. When

it is three or four weeks old it is taken out to be shown to its admiring friends, regardless of wind or weather, the only thing that can keep its mother and it in, being a pouring rain, or a heavy snow storm. Is it any wonder that hundreds of babies die every year from croup, pneumonia, congestion of the lungs and other pulmonary affections, after being subjected to an ordeal like this?

As the baby grows older its diet is varied. It is allowed to help itself at the table, and as a result its stomach is thrown out of order, or it may be that it is attacked by an ephemeral fever or malarial fever. Now in the case of an adult whose stomach revolts at an undigestible article of food or who is seized with fever, it is well understood that he will not eat much for a few days. No alarm is felt because he abstains from food, and with a little medication he speedily recovers. In the case of a sick infant, however, neither the stomach nor the system is given any chance to relieve itself. Every two or three hours the little patient is forced to nurse, and if in a few minutes, vomiting occurs the warning is not heeded. The weak and irritated stomach is loaded up again with food which in a brief space is certain to be again rejected, until the child is thrown into a nervous state of excitation that is certain to protract the disease, and to render a cure far more difficult.

In another class of cases the child is irritable and peevish, cries all the day long, and has little or no desire for food. All sorts of diseases are suspected and the child is treated with various home remedies, when in fact the real trouble is that the mother's milk is not rich enough in quality to properly nourish the child, although it may be apparently plentiful in quantity. In still other cases the mother's milk does not seem to agree with the child, and an infinite variety of patent foods are resorted to in the hope of obtaining relief, when, in fact, the child is suffering from an attack of latent malaria, and, consequently, has no particular desire for any kind of food. The attack disappears about the time the latest novelty is being experimented with, and it obtains the credit which is justly due to time and the good constitution of the child. Many other causes might be enumerated, but, as said before, they can all be comprised under the head of bad management and improper feeding. And they can all be avoided by inaugurating a more sensible procedure in the management of infants from the moment of birth until they are two or three years old.

The infant should not be hurried into the world by the use of forceps, but the mother should be assisted to deliver the child naturally and easily by her own efforts. When the child is born the cord should not be cut until after respiration is fully established. The child may then be wrapped up in a warm cloth, placed under a blanket and allowed to remain undisturbed for twenty minutes or half an hour, until the mother has been made comfortable. Its face may then be cleansed with tepid water, but no other part of the body should be washed. Instead, it should be thoroughly rubbed with oil or lard from head to foot, and then be quickly and simply clothed and placed in bed. It should not be stripped again for five or six days, at which time the cord will have dropped off. An exception to this rule of non-disturbance is to be made in case of evident hemorrhage from the cord, or of violent or prolonged crying, in which event all the clothes must be removed and search made for the trouble.

Old nurses will insist on washing the baby from head to foot every day; but nothing could be more injurious. A daily bath in summer time is refreshing and beneficial, but during cold weather a bath once a month is ample for any child. Very few adults, and no old people, are in the habit of taking a daily bath in the winter season. Old people could not stand it, and it ought not to be expected that less care in this respect is requisite to keep alive a delicate infant than a vigorous old man.

The subject of feeding requires immediate consideration. Comparatively few women have any milk until the infant is three days old, and as that is too long for the newborn babe to go without food, it should be given in the meantime a liberal allowance of half cow's milk and half water, with a little sugar, every four hours. Even after the flow of milk is established, if the mother is thin and pale and has not sufficient milk, or states that the baby wants to nurse all the time, or empties the breasts whenever it nurses, it should be given three or more full meals of cow's milk every day, in addition to what it may receive from the mother.

During the first two or three weeks the cow's milk may be diluted with an equal quantity of water, after that time it may be be given to the baby in its original purity. There need be no fear of the two forms of

nourishment disagreeing with the infant, if its digestion is good, and even if a slight intestinal warfare were to ensue, it can be quickly subdued by medication.

If the mother is sickly, or unusually weak, no attempt should be made by her to nurse the child, but cow's milk immediately substituted. Any other course is positively injurious to both the mother and the child, sapping the strength of the one and furnishing insufficient and improper nourishment to the other.

An infant should not be taken out of the house until it is at least two weeks old, and not even then if the weather is cold or damp or the wind high. More care should be exercised in this respect with the infants than with the very aged. Old people know how dangerous exposure to a low temperature or a high wind is, and they consequently remain in-doors for weeks and months during the winter season, but the poor unfortunate baby is ordered out every clear crisp day, under the belief that it will be hardened by exposure. Any one whose business or pleasure causes him to traverse Franklin Square during the summer cannot fail to notice the groups of old men, retired merchants and others, who gather there to exchange reminiscences. On the other side of the walk, or a short distance away, he will also observe a number of mothers and nurses, with infants in their arms and in carriages. The cool fresh air of the square imparts new life to both groups, the aged and the very young, keeping the one out of the grave, and helping the other out of the cradle. Six months afterwards a pedestrian going through the square on a bright, clear, cold day, the thermometer marking thirty-five or forty degrees, will see the same group of nurse-maids and their infantile charges; but the old men are not there. They are sitting snugly by their fire-sides, and will remain there until the warm days of spring return. What wonder is it that two hundred and seventy out of every thousand children under two years old die every year, when they are subjected to such risks as these.

Keep the child warm, give it sufficient nourishment, guard it against exposure to cold and winds, and the death-rate will drop from two hundred and seventy per thousand to less than a hundred.

The therapeutics of infantile diseases is beyond the scope of this article; but it cannot be too frequently stated that many deaths would be avoided, if medical advice were obtained in time. That it is not sought for as early as it should be, is due to the wide-spread belief that sick children cannot stand much medicine. Or, in other words, many parents believe that the diseases of childhood are either very fatal or very trivial, and that medicines are consequently useless in the former and dangerous or unnecessary in the latter. No error could be fraught with more evil than this. Children are subject, with but few exceptions, to the same diseases as adults, arising from the same causes, requiring the same remedies, though of course in different doses, and in dangerous cases requiring the same heroic measures which alone can bring an adult safely through the crisis of a serious malady.

304 North 18th St.

A CASE OF TRIPLETS.

BY E. D. CHASE, M. D.,
GALVESTON, TEXAS.

I am led to report this case, not that the labor was remarkable for length, severity, complications, or other point of obstetric interest excepting the number of children; not that it required any great amount of skill or tact to consummate it; but, partly from its rarity, occurring as it does but once in about six thousand labors; partly from the fact that it is the first case of the kind I can find recorded for this city; and partly to put it on record, as statistics for those who love them, and as an item of curiosity for all.

I was summoned November 1, 1889, at 3 A. M., to see Mrs. J. W. H., white, aged 30, who had been suffering more or less for five or six days, and with labor-pains since midnight. This was her sixth confinement, the previous ones all single. There was no record of plural births in any of *her* family, but the husband's sister had once given birth to twins.

I found a roomy pelvis, vagina well lubricated, external os fully dilated, and through the bulging bag of membranes I could make out the head in the left occipito-posterior position. The pains were regular and seemed strong enough, but the progress of the labor was not as satisfactory as the circumstances seemed to demand. So at the next pain I sawed across the tense, bulging membrane with my finger-nail, when it

ruptured and about a pint of fluid came gushing out. A second pain almost immediately followed, bringing the child—a girl—at 4 A. M. While engaged tying the cord, the mother informed me that something was wrong yet. A hasty examination revealed another bag of membranes at the os, and a little later I could make out a footling. As there was no longer any use for the bag of membranes, and as the pains were strong, it was also ruptured. With another gush of waters, and after three or four pains a boy was born at 4.25 o'clock.

Now was a good time to stop; so I was totally unprepared for the cheering announcement, "All isn't right yet, doctor." This time I found a head in the right occipito-anterior position. The pains seemed now to have ceased, and the woman declared she would die, as she "hadn't misery enough to bring it." A five-grain quinine bi-sulphate pill and a small toddy, with, after some little time, judicious manipulation of the uterus, brought on the pains again. This time they were more severe, and lasted longer, but seemed ineffectual. She wanted to give it up two or three times, but a little assurance that all was right, and slight compression over the uterus brought away the third child—a boy—together with the placentæ and membrane at 6 A. M. The child was enveloped in the placenta and membranes, making comparatively a large body; and this doubtless the cause of the longer, harder delivery. The mother was only a little tired, and talked and joked as lively as ever. In all her previous labors she sat up within an hour and nursed the child, and usually got up and did her work after the seventh day. After seeing her babies properly attended to, I left the mother in charge of the nurse, intending to call again in the afternoon.

There was only about a quart of fluid expelled. Scarcely an ounce of blood escaped. There was one single and one double placenta united by membrane. The girl was attached to the single placenta, the two boys to the double one. There was only one sac for the boys; therefore there was no bag to rupture or waters to attend the delivery of the third child.

Of the children one boy and one girl weighed two and three-quarter pounds each, and measured sixteen inches in length; the other boy weighed three pounds and measured seventeen inches in length. All were well formed, good-featured, apparently healthy children, and seemingly as well fitted for the race of life as larger babes.

The girl died of trismus nascentium on the ninth day, and one boy of meningitis on the thirteenth day. The other boy still lives, is growing nicely, is healthy and hearty and has had his "*grippe*" with the rest.

COMPLETE LACERATION OF THE VAGINA.

BY HERBERT A. STARKEY, M. D.,

PHILADELPHIA.

December 6, 1889, being in Vineland, N. J., I was asked by Coroner E. H. Bidwell, M.D., to examine the body of a colored woman discovered in an old stone building. We found the body in a mass of straw in a corner of the miserable hovel. On superficial examination we found the body still warm, evidences of vomiting and of severe hemorrhage from vagina, and the protrusion of a mass which, at first, was thought to be a string of membranes.

The body was removed to the Coroner's office, where we opened the abdomen, and discovered that it was filled with bloody serum. At Douglas's pouch a laceration in the vagina was found, large enough for the passage of a man's hand, and through it a portion of the omentum protruded. The peritoneum and adjacent tissues showed signs of acute inflammation.

Evidently the man (who was afterwards arrested by the Coroner) had, in a drunken and erotic passion, introduced his hand into the vagina, and forced it through the point of junction of the posterior wall with the uterus and into the abdominal cavity.

The prisoner confessed his crime to one witness, but told an entirely different story at the Coroner's inquest.

The woman had evidently lived for some hours after the assault.

Taylor, in his work on *Medical Jurisprudence*, speaks of a girl eight years old, who was raped by an adult, and who lived for six days after suffering a laceration of the vagina. But few of these cases are on record.

—The artificial carbolic acid lately introduced appears to be of such a stable character that it may be compressed into tablets for forming extemporaneous solutions.

SOCIETY REPORTS.

NEW YORK ACADEMY OF MEDICINE. SECTION ON ORTHOPEDIC SURGERY.

Stated Meeting, December 20, 1889.

A. B. JUDSON, M. D., Chairman.

DR. J. B. BRYANT read the paper of the evening, entitled, the

Functions of the Ligamentum Teres.

The paper was illustrated by a preparation including the femur, the os innominatum and one-half of the sacrum. The capsular ligament of the hip-joint was left entire, and the acetabulum was perforated by a trephine from the inner side of the os innominatum. A thread attached to the ligamentum teres and passing out of the opening was held in the hand of the observer, while the femur was made to describe the natural motions of the hip-joint. It was found that the ligament was relaxed in all positions excepting in outward rotation with flexion, and adduction with flexion. When these positions are taken, the ligament tightens, and it is thus demonstrated that the round ligament has no mechanical function excepting when the femur is flexed, and its use when this position is assumed, is to check adduction and outward rotation. It is most relaxed in adduction. But the ligament is so frail that it is almost of no use in the mechanism of the joint. While it is always ruptured in dislocation of the hip, its presence cannot be considered as a preventive of this accident, and it is so little liable to tension or injury even from extreme violence to the limb, that it can hardly be considered in the question of the etiology of hip disease. That it is the initial seat of hip disease belongs to the long list of unproven theories, assumptions that cannot be gainsaid. The principal function of the round ligament is to carry nutrient vessels to the femoral head; and yet when the epiphysis joins the diaphysis, the vessels return before reaching the head, and later they disappear entirely from the ligament.

DR. N. M. SHAFFER called attention to the fact that abduction, in which the ligament is most relaxed is the position in which the limb is found in the very early stages of hip-joint disease, when the first sign of the disease is an instinctive protection of the joint. Although the motion is limited in all directions, there is the greatest limitation where the strain on this ligament is the greatest. Later, when the functions of the ligament are practically abolished by the advance of the disease, the muscles assume control independently of the ligamentum teres. As this very vascular ligament nourishes the epiphysis, he believed it should be carefully studied in its relation to disease in early youth and in its early stages.

DR. V. P. GIBNEY suggested that abduction is seen in the very early stage because the patient when standing throws his weight on the sound limb, and instinctively puts the affected limb in the position of rest in which it is abducted and advanced. He thought Dr. Bryant's demonstration made it difficult to see how this ligament could play an important part in the history of hip disease.

DR. JUDSON agreed with the last speaker. He thought the profession had of late years turned away from the view that hip disease begins in the articular surfaces or the synovial membrane, and had pretty generally agreed that it begins in an osteitic focus deep in the cancellous tissue. It is therefore a backward step to turn again toward the ligamentum teres as a structure early involved.

DR. PUTNAM JACOBI said that it might be interesting to note that one view held is that with the termination of fetal life the ligamentum teres ceases to have any functions. There are many such structures in the body about which learning and research may be vainly expended in the effort to discover their function, because it is really outgrown. It is highly probable that this ligament can have but little to do with the mechanics of the joint. Since the investigations of Volkmann, it has been pretty well agreed that in children disease begins in the cancellous tissue; but that in adult life it sometimes occurs as a primary disease of the synovial membrane, especially under the influence of rheumatism.

It is also worthy of note that in children it is often possible to mark out very distinctly the point in the clinical history where hip disease ceases to be limited to the bone, and invades the joint. She had had an excellent illustration of this in a child who came to the dispensary with the history of having limped for several months, but who at that time had no pain and no malposition of the limb. The child was seen several times during the next few weeks, but

it was only after some time that the child returned complaining more of pain than of limp. Then the leg was found to be abducted and somewhat flexed, and passive abduction was excessively painful. From that time, the case followed the usual course of hip disease.

DR. R. H. SAYRE had found in the early stages of most cases of hip disease that the first movement to be markedly limited was that of internal rotation. Yet internal rotation as shown by Dr. Bryant's preparation, does not make traction on the ligamentum teres. Hip-joint disease may be either synovial or osteitic, although in the vast majority of cases it is primarily osteitic. In childhood, cases are occasionally found of disease of the knee and ankle particularly which are apparently synovial from the outset; and the same occurs, though rarely, in the hip.

HOSPITAL NOTES.

BUFFALO GENERAL HOSPITAL.

SERVICE OF DR. ROSWELL PARK.

Resection of Intestine.

This woman had a large ovarian tumor which was removed two years ago in Rochester. Three weeks after the operation an abscess developed in the abdominal wall and, for a number of months, fecal matter and gases have escaped through the opening, showing that there is an intestinal fistula besides the abscess cavity which may be entirely in the abdominal wall or partly beneath. The patient was etherized and placed on the table, the temperature of room being 89° F. The scar of the abdominal section extended from the umbilicus to a point four inches lower, where the fistula opened. Into it a probe was passed and then a soft rubber catheter, to the depth of three inches.

The abscess cavity was opened and found to be of the width of the hand, running from the middle line obliquely upward, backward and to the right for a distance of three inches. A pocket extended upward across the right rectus muscle and beneath its fascia. Through this pocket a steel sound was passed and a counter-opening was made upon it when it was discovered that the communication with the intestine was at this point. The abscess cavity was thoroughly curetted. The original median incision was enlarged so as to gain access to the strong adhesions which bound the intestine to the abdominal wall.

First a probe and then the finger was passed into the bowel. The thickened connective tissue was dissected through, parallel to the abdominal wall. Considerable hemorrhage was caused, and it became necessary to divide the rectus so that an underlying branch of the deep epigastric could be tied.

Below the opening into the bowel a marked constriction was felt which would explain the colicky pains of which the patient had complained. The difficulty and danger of separating the constricted portion of the bowel from the adhesions which bound it to the pubes were great and, on the other hand, it was questionable whether it would be safe to close the fistula and leave the constriction alone.

With considerable difficulty the adhesions were broken and Gussenbauer's clamps, protected with rubber tubing, were placed at the extremities of the thickened and constricted portion of the bowel. Two adjacent portions of the bowel were bound firmly together by adhesions so as to make a U-shaped tube. Even after separating the arms of the U, it was found that some eight inches of intestine which had been cut and torn loose from its parietal adhesions, was so thickened, constricted and doubled on itself that its removal was necessary.

The intestines were nearly empty; but what little mucous and fecal matter they contained was stripped out onto sponges, which were immediately thrown away. The mesentery was ligated in sections, close to the bowel, each ligature including about an inch and a-half of mesentery. The ligatures were of heavy catgut; each ligature was tied; the portion of intestine corresponding was cut loose from the pedicle, and when all the ligatures had been tied the intestine was resected between the clamps and the ends, and again carefully stripped of their contents as before.

The edge of the mesentery was puckered together by a fine silk suture and the ends of the intestines were joined by thirty-six Czerny-Lembert sutures. The external wound was closed with silver-wire sutures. No drainage from the peritoneum was used, but the former abscess cavity was packed with iodoform gauze and catgut drainage used. Death followed from shock after two days.

PERISCOPE.

Gangrene following Morphine Injections.

Dr. L. Bremer, of St. Louis, Mo., publishes in the *Journal of Nervous and Mental Diseases*, February, 1890, some remarks on emphysematous gangrene following hypodermic injections, in which he says:

One of the varieties of septicemia well known to, and dreaded by, the surgeons of former generations, but now almost banished from the surgical wards, is emphysematous gangrene, or, in modern parlance, malignant œdema. The general adaptation of the great principle of cleanliness, in even insignificant lesions and operative interference, has almost done away with this formidable foe to the wounded, and where it does appear it follows not, as a rule, in the wake of the surgeon's instruments. In our days, if at all, it is met with in open fractures and deep lacerated wounds which in some manner have come in contact with filthy material harboring a certain pathogenous germ.

It is at present a well-settled fact that this form of wound infection owes its origin to a well-characterized bacterium, the bacillus of malignant œdema.

The pathological changes produced by the microbe by means of hypodermic injections of fluid containing the germ, in animals, are diffuse œdema of the neighborhood of the inoculation, accompanied by emphysema. The latter is due to gas-formation in the tissues. The disease (in animals) clinically resembles anthrax, from which, however, it can be easily differentiated by the manner of death, by the form of the bacillus found, by its manner of spreading through the organism (the anthrax bacillus proliferating in the blood, the other in the tissues), and, last, by its behavior in the cultivating media.

The bacillus is a slender rod, growing at times into false threads, resembling very much the anthrax bacillus, from which it differs by the rounded ends, the latter having both of its extremities slightly excavated. It is met with in the superficial strata of manured ground, in putrefying cadavers, in old rags, in dish-water, etc. It forms spores, and it is generally in this state that the bacillus occurs in the substances named and is introduced into the living body.

The artificial production of malignant œdema in man has been observed before. Thus Brieger and Ehrlich have described it in two cases of typhoid fever following the subcutaneous injection of tincture of musk, which probably contained the organisms. The patients died. Dr. Bremer himself, in 1888, reported a fatal case of malignant œdema in a woman who had been in the habit of producing abortions on herself and had probably employed an unclean instrument in the last operation for that purpose.

Dr. Bremer describes two recently observed cases following the use of the hypodermic needle in morphinists, and calls attention to the fact that the morphine injector is so careless as to the condition of his syringe that he will continue its use, although every injection is sure to be followed by an abscess. In such cases the syringe is "infected" with pus-producing organisms.

In the two cases reported, and in others similar in kind, it seems that the pus-producers pave the way for the successful colonization of the bacillus of malignant œdema.

Death after Preventive Inoculation, by Pasteur.

A boy named Rankin, who was bitten by an animal supposed to be rabid some time ago, and who was subjected to a course of anti-rabic inoculations by Pasteur, in Paris, died at Coleraine, of hydrophobia, March 12, 1890.

Amputation of the Arm and Scapula.

A case in which the above operation was successfully performed is reported in the *Annals of Surgery*, Feb., 1890, by Dr. Edwin A. Lewis, of Brooklyn. The patient, a man 47 years old, was thrown from a carriage Nov., 1887, striking his left shoulder. He had not been able to use his arm well since the accident and the shoulder had been gradually enlarging. In April, 1889, the arm suddenly gave out and has been practically useless since. He was admitted to the Brooklyn Hospital, April 26, 1889. The patient's general health was good and an operation was requested. The shoulder was very much enlarged although not very tender to manipulation. A diagnosis of osteosarcoma was made, and the patient was operated upon April 29.

The subclavian artery was first tied in the

third part of its course. The scapula and outer half of the clavicle were removed with the upper extremity. Drainage was established at the lower angle of the scapula. All antiseptic precautions were taken. Patient suffered from severe shock but rallied well.

The amount of hemorrhage was not very considerable. The only artery tied was the subclavian. On the third day the drainage-tube was removed from the lowest part of the wound where the lower angle of the scapula had been. About two drachms of sanious aseptic fluid followed. This was the remains of the douching of the extensive exposed surface at the time of the operation and was not the product of any inflammatory process. Nearly the entire wound healed by first intention. The patient's temperature hardly went above normal.

Since the operation the patient has gained in general health and strength. On examination eight months after the operation, the line of incision shows the two small points that healed by granulation, one at the middle of the clavicle and the other at the lower angle of the incision.

There is a point of great tenderness near the lower angle of the incision. By gentle palpation the bulbous extremities of some of the brachial plexus of nerves can be felt. Dr. Lewis advised the patient to have these nerve trunks resected. There is not the slightest indication of any return of the disease at any point.

Ashhurst has tabulated 51 cases of this operation, which show a mortality of about 25 per cent. Dr. Stephen Rogers, of New York, in the January number of the *New York Medical Journal*, 1869, publishes a table of operations for partial or complete excision of the scapula. There are 64 cases. Of these, 15 included removal of the arm and part or all of the clavicle. The mortality in these cases was 20 per cent. Many other cases have been reported singly and, doubtless, many not reported at all. The operation seems to be sufficiently rare to warrant the reporting of every case, whatever the result, for the purpose of assisting in statistics. A most complete table has been published by Berger, of Paris, in a monograph on this subject. He reports 51 cases, the same number as Ashhurst, but analysis shows that he mentions only 25 of the same cases. Therefore, he reports 26 cases not mentioned by Ashhurst.

His conclusions, from a critical review of the history of each case, point to a death-rate rather less than mentioned by Ashhurst, *i.e.*, about 20 instead of 25 per cent. Berger suggests that the operation should be called amputation of the upper extremity next to the trunk, or the "interscapulo-thoracic amputation."

Pressure on the Perineum to Empty the Bladder.

In the *Virginia Medical Monthly*, February, 1890, Dr. Henry V. Gray, of Roanoke, Va., strongly recommends the practice of pressing upon the perineum to expel residual urine in the case of old men. When at stool, he says, in the usual attitude, that of squatting upon the feet, with the knees flexed, place the right hand under the right thigh—the palm of the hand rather in a diagonal line; press the palmar surface of the fingers firmly between the scrotum and anus, not too pointedly; make a reasonable inspiratory effort, which will force the perineum outward; and, by giving the proper support and resistance with your hand, one can readily and completely empty both bladder and rectum and thus prevent that bulging and sagging of the urethra and rectum which would otherwise follow the effort. This will not only accomplish in a satisfactory manner the special object of the occasion, but will break up the tendency to constipation, force back the blood into the general circulation, abridge the tendency to piles, abscesses, fissures, hypertrophy of the prostate gland, cystitis, and that horror of many old men, pruritus ani.

How a Well may be Polluted.

Dr. C. A. Probst says, in the *Sanitary Record*, January, 1890, that a short time ago he was requested by the attending physician to make an investigation of a farm-house where six cases of typhoid fever had occurred. The house was found situated on a steep side-hill overlooking a small river. The out-buildings were situated at some distance from the house, and on a lower level. The well was placed at the kitchen door, but was well protected from surface washing by curbing. It was seventy feet deep, drilled through the rock to the bed of the river. About ten feet from the well, and above it, was a cistern fifteen feet deep. Six children, ranging in age from five to twenty years, were found in various stages

of typhoid fever, and the origin of the disease seemed very obscure. On close questioning it was finally learned that the first child taken sick—a boy about six years old—had visited a relative at a village a few miles distant, and that he had played with some children at a house where there was a person sick with typhoid fever. About two weeks after he came home he was taken sick, but did not go to bed or call a physician until a week later. During that time he had some diarrhœa, to which little attention was given. The father confessed that even after the physician was called and left strict instructions to bury all stools of the patient at a distance from the house, he had not done so, thinking, as he said, that the doctor was a little too particular. The stools had been thrown on the ground, though not near the house.

It was learned that the cistern *leaked*, and that after heavy rains it rapidly filled, but remained full only a short time. It was suggested that the germs of the disease in the first case had gained access to the well water by being carried into the cistern and from the cistern into the well. The cistern and well were carefully examined a few days afterwards, by the owner and the attending physician, and it was made clear that the well was being fed by the cistern and that the cistern contained a large amount of filthy deposit.

This should teach us that when wells and cisterns are near together care must be taken to prevent pollution of the water in the cistern, as a leak, which may occur in the latter at any time, may carry dangerous material into the well.

Treatment in Emergencies.

At a meeting of the John T. Hodgens Medical Society, of Harrisonville, Mo., and reported in the *Kansas City Medical Record*, Feb., 1890, Dr. Wall read a paper on "The Treatment of Cases in Emergency."

Once, when sent for in haste to see a man who was thought to be dying from choking, seeing a black-snake whip lying by, he proceeded to use it for a probang, pushing the meat from the œsophagus into the stomach.

Another time he was called to see a child with the croup. He had no medicine with him, but mixed coal oil and sugar, and gave it in teaspoonful doses, and it cured the child.

Another case which he reported was that of a little child with a bean in its nose that he could not get at with any instrument he had. So he pressed on the unobstructed nostril until it was closed and then blew into the mouth until the bean was forced out.

Still another child had a tin top in the larynx and could not cough it out. Dr. Wall lifted the child by the heels and slapped it sharply between the shoulders and the top flew out.

Arrested Development of Generative Organs.

At the meeting of the Pathological Society of London, held Feb. 4, and reported in the *Lancet*, Feb. 8, 1890, Mr. Shattock showed a specimen of a female fetus, presenting arrested development of the generative organs. The rectum and anus were normal, the clitoris and its prepuce were unnaturally large, the former being grooved on its inferior aspect, and when traced backwards led to a small aperture in the perineum. This was the urethral opening, which above was surrounded by a full-sized and perfectly normal prostate. The bladder, uterus and ovaries were well formed. Below the uterus was a vagina, which passed through the posterior portion of the prostate and opened into the urethra, being narrowed at its lower end. The specimen was of interest because it threw a side light on a question relating to the hymen and to the vesicula prostatica of the male. It bore out Leuckart's view that the vesicula prostatica represented both the uterus and vagina, and it also demonstrated that the orifice of the hymen might be regarded as the narrowed aperture by which the vagina communicated with the urino-genital sinus. If this were the case, the analogue of the hymen should be found in the adult male at the spot where the prostatic vesicle opened into the urethra, and he showed specimens which demonstrated a considerable narrowing at this point. He submitted that the view which Mr. Bland Sutton brought forward last year at the College of Surgeons, that the hymen was the remains of the septum between the proctodeum and the vagina, was untenable, and he illustrated his contention by diagrams. In reply Mr. Sutton admitted that there was much to be said in favor of Mr. Shattock's view, and he had a specimen which completed the chain of evidence in this direction.

THE
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CHARLES W. DULLES, M.D.,
EDITOR AND PUBLISHER.

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NEVER ROLL A MANUSCRIPT! Try to get an envelope or wrapper which will fit it.
When it is desired to call our attention to something in a newspaper, mark the passage boldly with a colored pencil, and write on the wrapper "Marked copy." Unless this is done, newspapers are not looked at.
The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

INSOMNIA AND ITS TREATMENT.

With the ever-increasing mental and nervous strain upon American men and women, it is not surprising that we hear more and more of the widespread prevalence of insomnia, while the difficulties attending its treatment are proved by the constantly growing list of measures recommended for its relief. He is the wise physician who at once gives up the thought of any routine treatment of it, and devotes to it the most careful consideration of its etiology and theraphy. The pressing need for this has elicited contributions from many able writers; two of the most recent ones being that of Jastrowitz in the *Berliner klinische Wochenschrift*, July 3, 1889, and that of Krafft-Ebing in the *Wiener klinische Wochenschrift*, 1890. Unfortunately we are in many cases unable to determine the causes of sleeplessness, since we do not know as yet with certainty the cause of sleep. The mechanical theory would seem to be most probable, that sleep is produced by anemia of the brain; but this is by no means certain. Possibly the cerebral anemia is the result of sleep and not its cause. A dynamic theory, much less probable, has also been advanced, according to which sleep results from the resting of those parts of the brain which preside over consciousness and volition. There is also a chemical theory, proposed by Preyer, which seems to us somewhat strained; accounting for sleep by the production by the tired muscle of some toxic substances which act upon the brain. Probably the most frequent cause of obstinate insomnia is brain overwork and nerve overstrain, whether through work or worry. The anxious business man, the mother worn out by long-continued anxiety over a sick child, the student—frequently a preacher—reading late into the night—begins to notice on retiring that he is restless for fifteen minutes, half hour, or longer before sleep comes to him. It is nature's warning voice which he would do well to hear; for this condition is often but the precursor of a more serious insomnia, which is unfortunately not of necessity cured by the removal of the initial cause. Still more powerful than overwork is the exercise of the emotions, of whatever nature. While the mind should be at rest, it is instead entertaining multitudinous sensations of fear, hope, anger, revenge, and the like. The man expecting to receive on the morrow an appointment to some important position, or he about to be hanged, is not likely to sleep much during the night preceding. In fact, anything which has produced unusual excitement during the day, which is disturbing the mental quiet during the rest in bed—as noises in the street—or which in prospect fills the mind with thoughts and feelings, robs the nervous individual of sleep. And if these causes persist insomnia becomes habitual.

Closely allied to insomnia of this nature

is that depending on actual mental and nervous diseases; such as melancholia, mania, dementia, and any conditions of mental excitement attended by delirium or hallucinations. Insomnia often seems to be a premonitory symptom of insanity; though frequently the cause of it as well. Organic mental diseases involving disturbances of the cerebral circulation may cause insomnia, as may focal cerebral lesions. Sleeplessness is further observed in those who have experienced excessive bodily fatigue; who are "too tired to sleep." Febrile diseases also, as typhoid fever and pneumonia, are frequently attended by distressing insomnia, producing real nervous exhaustion of the patient; and physicians sometimes have a groundless fear of administering suitable remedies under these conditions. Various chronic diseases, as well as conditions of anemia and malnutrition, often predispose to anemia. There is a series of what might be called "toxic" insomnia. Prominent among these is the persistent sleeplessness seen in *mania a potu*, and the troublesome condition witnessed in those struggling against the opium habit. Coffee and tea are common causes of insomnia, and tobacco may produce the same effect, though there are individuals accustomed to its use in which the withdrawal of it produces sleeplessness.

Perhaps the insomnia resulting from uremia, and often an early symptom in Bright's disease, may be included here. In certain other conditions the inability to sleep is a purely secondary condition; as when pain, dyspnœa, cough, palpitation of the heart, vesical irritability, the polyuria and thirst of diabetes, etc., prevent sleep which would otherwise come. Finally a very frequent cause of obstinate chronic insomnia, if indeed it can itself be called the cause, is old age.

With this extended group of diverse etiological factors, it is evident that the selection of proper treatment becomes a matter of the greatest difficulty.

The hygienic measures to be employed in the treatment of insomnia depend largely upon circumstances. The acting cause must, of course, be removed if possible. Tea, coffee and tobacco must be abandoned. Working late at night must be stopped, as must the over-excitement of the emotions by theatre going, the reading of thrilling romances, the entertaining of company in the evening, etc. All sources of care and anxiety must be taken away; and this is usually one of the most difficult of the problems which the physician has to solve. In severe cases it may be necessary to remove the patient to entirely new scenes. This is especially true in cases due to the combination of excessive mental overwork and undue exercise of the emotions; these forming probably the most obstinate of all cases. It may be that for months or years the patient must be kept from all work and removed from his surroundings by travel. Confinement to the house, or perhaps to bed, with the Weir Mitchell cure, may be necessary at first. The removal of the emotional causes can only be accomplished by time, suitable mental diversion, and effort on the part of the patient to forget the death of relatives, disappointed hopes, business troubles and the like—naturally a difficult matter. Apart from the removal of the cause, hygienic, physical and dietetic measures are necessary to produce sleep. The application of water in various ways is often useful, warm baths lasting one-half to one hour taken before retiring; or, in other cases, though less frequently, cold sponging followed by brisk friction may be effectual. Another serviceable method, which, like these, is supposed to remove blood from the head and produce the desired anemia, is bodily exercise before retiring.

Benefit has been derived from the use of dumb-bells or of a health-lift in the case of those who must, of necessity, use their brains at night. This should not replace a proper amount of exercise during the day, which is an essential. A curious observation has been made that certain individuals

are unable to sleep when reclining, but drop asleep readily when sitting up. This again would seem to depend on cerebral anemia, and may serve us a useful turn in practice. Although a full meal taken late in the evening is liable to produce sleeplessness, it must be remembered that the sensation of an empty stomach may prevent sleep; and that insomnia may be sometimes overcome by ordering a glass of hot milk, with, perhaps, one or two crackers to be taken a half-hour before going to bed.

Another requisite in the treatment is that sleep shall be solicited. The patient should spend a quiet evening, go to bed in a cold and darkened room, exclude company, relax the muscles by proper position, and make a firm and persistent effort to go to sleep. Then arises the natural desire to toss and turn, to scratch some part of the body which itches, to change the position of some member which is not altogether comfortable. All such impulses should be resisted, and the eyes be kept closed and not a muscle moved. A considerable, or even great, effort is required to follow this injunction. Whether it is that the intense concentration of mind on the one purpose acts as does hypnotism, we do not know, but the result is that sleep will often come surprisingly soon. In other cases sleep may be obtained by listening to some uninteresting matter read out loud in a low, monotonous voice. It is further of the greatest importance that the feet be not cold, as this is a great interference with sleep. Massage is a decided help in many cases. Electricity may be employed, especially the galvanic current applied to the head. Finally hypnotism is often of the greatest use in obstinate cases. Constitutional conditions and diseases should receive proper treatment, and dyspnœa, cough, pain, palpitation, etc., be relieved by appropriate means. In the insomnia produced by excessive bodily or mental fatigue, Lauder Brunton has successfully given strychnine at night, in the effort to bring the nerve system up from the condition of over-fatigue to that of simple fatigue, and thus induce sleep.

Hypnotic drugs will, however, be occasionally or constantly needed in many cases. When called to a patient with very troublesome sleeplessness the first indication usually is to procure a night's quiet sleep at once, if possible, by the use of some powerful, safe hypnotic. In chronic cases, however, these drugs should be used as little as possible. The choice of the hypnotic is a matter of great importance.

First in the list, as far as the power of producing sleep is concerned, still stands opium and its preparations. It is, however, rather a narcotic than a hypnotic, and is not to be recommended in most cases. Although usually effectual in producing sleep the patient feels stupid upon the following day, and often suffers from headache, nausea and loss of appetite. In some persons it produces excitement instead of sleep. The imminent danger of the formation of the opium habit must always be borne in mind, and the drug given with the greatest caution in chronic cases of sleeplessness. In patients in whom insomnia is secondary to pain or cough the drug is invaluable. In dyspœna from heart disease, though perhaps objectionable on theoretic grounds, it has often stood us in good stead, and we do not hesitate to use it in suitable cases.

Chloral is perhaps still the most powerful hypnoptic, but it is one which is called for very rarely. Its hypnotic action is often preceded by delirium, and sometimes this is the only result. It is a powerful heart poison, sometimes fatal in a single and small dose. It has, moreover, a deleterious action on the nervous system when given continuously, and there exists, too, the danger of the formation of a "habit" with it. It may be reserved for severe insomnia in the psychoses; as there is no need to employ it in conditions in which other safer hypnotics answer equally well.

Chloralamid or chloralformamid, introduced by v. Mering, is the hypnotic now

attracting the greatest attention. It is a combination of chloral and formamid, and appears to depend on the former for its efficiency. The dose is from 30 to 45 grains. Sleep comes in one-half to three hours, and lasts two to nine hours. The reports concerning its value are still very conflicting. It is certainly a useful hypnotic, but though it is apparently less dangerous than chloral, its action on the heart and respiration is not yet positively determined, which warns us to use it with caution.

Paraldehyde may now be called an old stand-by. Unpleasant effects after its ingestion are rare, except a very disagreeable taste in the mouth and odor on the breath during the following day. Its action in doses of 1-2 drachms is prompt and certain and the sleep obtained is refreshing. It is a useful hypnotic in delirium tremens and the psychoses, and can be used safely in heart disease, as it is entirely without depressing action on the heart even when given for a long period. The size of the dose and the disagreeable taste are the chief disadvantages.

One of the most valuable of the hypnotics is amylene hydrate. We have used it largely and find it equally as reliable and safe as paraldehyde, while the dose is smaller (15 to 60 minims). We are in the habit of administering it in capsules, each holding 15 minims. A glass of water or milk should be taken afterwards to prevent the medicine disagreeing with the stomach. A still more rapid action is secured if the remedy be given in emulsion with liquorice, but the taste is unpleasant. It is valuable even in maniacal cases, and is entirely safe in heart disease. The only bad effects recorded have been a condition resembling alcoholism, and this has been seen but rarely, and only after overdose.

Sulphonal, now so commonly employed, is at times a good hypnotic, but, it is to be feared, an untrustworthy one. It is exceedingly slow in its action; sleep frequently not coming for several hours, and persisting sometimes most of the next day. Many and various very unpleasant, though not dangerous, secondary effects may be produced by it; and this has indeed so often happened that we greatly prefer the more reliable amylene hydrate.

Urethan is a hypnotic of too little power to be of much use. Hypnone needs much further trial, especially as regards its action upon the heart, before it can be generally recommended. Methylal, somnal and other hypnotics have been recommended, but cannot be further discussed here. There are certain other substances not strictly hypnotics, yet which are often most useful in procuring sleep. One of these is alcohol. A glass of wine, ale, or beer taken before retiring will sometimes prove very efficient in insomnia of a slight degree. In persons disposed to alcoholism it is best to avoid it. Bromide of potash will often prove valuable, particularly in cases of nervous excitement or in insomnia due to palpitation of the heart. Its continued administration is not to be recommended, as it is distinctly depressing to the general strength. Hyoscine given hypodermically has frequently proved one of the most reliable drugs in the insomnia of the psychoses. It has also been used with benefit in some cases of the opium habit. It is, however, not unattended with danger. Cannabis indica has sometimes given surprising results, and procured sleep in cases suffering from pain, and in which morphia had ceased to give any relief, and amylene and sulphonal had proved useless. The sleep was, however, preceded by a semi-delirium very disagreeable to the patient. We cannot but consider that it is a worthy drug, too much neglected, and often capable of rendering more efficient service in time of pressing need.

In general, then, in addition to hygienic measures, amylene hydrate or pareldehyde should be employed if drugs are necessary; or sulphonal, if trial show that the patient can take it without unpleasant effects. These may be used in insomnia of all diseases, or

in that of brain overwork or emotional disturbance. In severe delirious insomnia, amylene or paraldehyde may be tried, and if these fail, chloral, provided that no contra-indications exist. Bromide of potash would also be of value here; opium should be reserved for patients in whom insomnia is secondary to some such causes, such as pain or cough.

ELECTRICITY AS A REMEDIAL AGENT.

The position of electricity as a remedial agent is still by no means so well defined as might be desired, or, indeed, as might have been expected from the length of time during which it has been employed by honest and intelligent medical men. As long as its application was restricted to the patients of quacks and pretenders, little was to be hoped from it; but when men of conscience and education took it up, it was to be hoped that its field of usefulness would soon be fairly well understood. Unfortunately this hope has not been realized; and to-day the medical profession presents the spectacle of three attitudes on the question: that of those who know little and care less about it; that of those who strongly advocate the use of electricity in medicine; and that of those who are so strongly opposed to the claims of its warmest advocates as to seem opposed to the use of electricity itself.

Careful consideration of the assertions made by these two latter classes does not make it easy for one who wishes to form a judicial opinion to decide what is the real value of electricity in medicine. There is hardly a town of any size in which acrimonious discussions in regard to this subject have not taken place, and Philadelphia has furnished its full share of them. Here we have men who claim to have seen the most beneficial results follow the use of electricity in medicine and in surgery, and other men who meet such claims with point-blank denials of the assertions by which they are supported. In no field of practice is this difference of opinion more striking than in the field of gynecology, in which there are here men who claim that electricity will dissipate fibroid tumors of the womb, and others who refuse to believe that what were dissipated were fibroids at all.

This state of affairs is in the highest degree unsatisfactory; and it is hard to see how the profession can find its way to deciding what those shall believe who must come to some decision before they can use, or absolutely refuse to use, an agent which may be a great boon or a great deception.

In the absence of the means of deciding finally, however, there is something which may be said without prejudice to the case, namely, that nothing would justify the sweeping condemnation of electricity which is sometimes indulged in but the assumption that all the men who claim that they get good results from it are either ignorant or unscrupulous; and this is an assumption which the facts do not warrant. On the contrary there are men in this country and in Europe of unquestionable intelligence and integrity, who have used electricity with results entirely satisfactory to their minds and who claim for it a less contemptuous consideration than it often receives. One of them—Dr. Andrew Graydon, of this city—at a meeting of the Philadelphia County Medical Society recently said:

"Prejudice should never be allowed to stand in the way of progress. No student should be hindered in his research after positive forces by the existence of a bias in the opinions of his fellows. The rules that bind the physician to his work should not be arbitrary. Are there no roads to success but those laid out by other faithful workers? Certainly our medical training and experience have taught us that different ones are achieving success, but not by the same methods. In the face of prejudice in the ranks of my profession I have followed the leadings of my inquiries, and what I have found is only that which any student and worker may. In these days when the spirit

of progress is rife, and medicine is getting to be more and more scientific; when its followers are not satisfied with mere statements but demand proof, I protest against this prejudice, which hinders many from leaving the iron-bound environments laid down in the spirit of the past. I do not make any extravagant claims for this agent. There is much we do not attempt to do with it; on the other hand, it can be proven to the fair and honest mind that there is a great deal it *will* accomplish."

Such expressions mark the sort of men from whom our best information in regard to disputed points in therapeutics must come. We need the experience and the opinions of men who do not make a hobby, or a display, of treatment by any given method, but who are willing carefully, patiently and conscientiously to try whatever seems likely to do good to the sick and suffering, and who faithfully report their results for the instruction of their fellows.

It is to be hoped that the uses of electricity will be studied in the spirit just described by those who have the best opportunities to do so, and that before long the members of the medical profession will emerge from the intensely controversial stage in regard to it in which they appear to be now, so that its true status may be clearly defined and its merits or demerits may be incontrovertibly demonstrated.

SANITARY WORK FOR SPRING.

The *State Board of Health Bulletin*, of Tennessee, in its issue for February 20, 1890, calls attention to the fact that the best months out of the twelve for scavengering and cleaning up work in cities are March and April.

Every one understands, it says, that during the hot summer months the upturning of polluted soil should by all means be avoided. Some of the best authorities on epidemics have traced very serious outbreaks to this cause; not only in hot climates, but in far northern localities where the summers, though brief, are torrid in temperature. Everybody in our part of the world understands that the emptying of foul pits and cess-pools, etc., should receive extra care in the hot weather of July, August and September. In many places that kind of work must go on at all seasons, but in the months just mentioned extreme care in respect to disinfection should be exercised so as to prevent the diffusion of noxious gases.

An excellent time for cleaning up is the latter part of autumn and the first of winter, when heavy frosts have fallen and the days are long enough for the accomplishment of good work. Thus good preparation is made for the winter, in which sanitary work is generally overlooked because of the increased expense and trouble.

During winter, premises become more or less foul, and March and April are months in which there is special need for effective sanitary work.

The *Bulletin* further calls the attention of the inhabitants of Tennessee to the very important fact that, although sanitation by official action is of vital importance to the health of a community, individual action by each housekeeper is not less so. Every back yard should be thoroughly scavengered, every cellar well cleaned and ventilated, every privy emptied and disinfected; and where water-closets are used, the connections should be examined and cared for.

These details have been urged upon the people of Tennessee again and again by the State Board of Health, but are just as much needed now as ever. The same could probably be said of every State in which there is a Board of Health; but still the warning should be repeated with unwearying patience until it is heeded by those to whom it is addressed. The progress of sanitation in cities and towns is slow, it is true; but we believe there is real progress and that an important part in the work is borne by just such faithful monitors as they have in Tennessee.

AMERICAN MEDICAL ASSOCIATION.

The next meeting of the American Medical Association will be held at Nashville, Tennessee, May 20–23, and the local committee is making every effort to secure the best accommodations for the Association, and all its members who shall attend the meeting. The various chairmen and secretaries of sections are also actively engaged in efforts to make the scientific features of the meeting interesting and instructive, and to have the results equal the admirable standard reached at the last meeting, at Newport, R. I.

It is to be hoped that these efforts will be fully supported by the members of the medical profession throughout the country, and that the Nashville meeting may be a first-rate one in every way. The hospitality of the City and State where the meeting is to be held are so well known that those who go there will be sure of a hearty welcome and abundant entertainment.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

A HAND-BOOK OF FLORIDA. By CHARLES LEDYARD NORTON. Part I. The Atlantic Coast. Small 8vo, paper, pp. xxxii, 240, with 49 maps and plans. New York: Longmans, Green & Co., 1890. Price, 50 cents.

This is one of the best hand-books of Florida which we have ever seen; and some familiarity with that interesting and healthful place of resort justifies the statement that all intending visitors to Florida would do well to consult its pages. The book gives valuable information in regard to the geography and history of Florida, and is illustrated with clear and accurate maps. It would be a little more convenient as a book of reference if it were indexed at the end of the volume.

CHEMISTRY: GENERAL, MEDICAL AND PHARMACEUTICAL, INCLUDING THE CHEMISTRY OF THE U. S. PHARMACOPŒIA. By JOHN ATFIELD, F. R. S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, etc. Twelfth Edition. 8vo, pp. xvi, 770. Philadelphia: Lea Brothers & Co., 1889. Price, cloth, $2.75; sheep, $3.25.

There are some books which require repeated commendations from the press in order to keep up the sale; but Atfield's Chemistry is not one of this sort. Since 1867 it has passed through eleven editions and now reaches the twelfth with unimpaired freshness and popularity. The present edition contains such alterations and additions as make it come up to the standard of chemical knowledge at the present time, and is especially adapted to the conditions of the U. S. Pharmacopœia. We can most warmly commend this admirable work to the attention of our readers. None better or clearer has ever been written; and every medical man who has chemical questions to study, on therapeutics, in hygiene or in toxicology, would do well to have it on his shelf or in his hand.

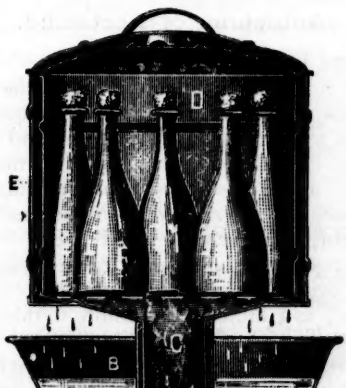
LITERARY NOTES.

—P. Blackiston, Son & Co., Philadelphia, will publish about March 15, a new Medical Dictionary, by George M. Gould, A. B., M. D. It will be a compact one volume book, containing several thousand new words and definitions, collected from recent medical literature, while the total number of words is beyond that in any similar book. It includes also elaborate and useful tables of the Bacilli, Leucomaïnes, Ptomaïnes, Micrococci, etc.; of the Arteries, Nerves, etc., and of the Mineral Springs of the U. S., together with other collateral information.

NEW REMEDIES AND APPLIANCES

In this department, notice will be given of Remedies, Food Articles, and Instruments or Surgical Appliances of which specimens are sent to the Editor; it will bear the same relation to these articles that the department of Book Reviews now does to books.

Steam Sterilizer.



Wilmot, Castle & Co., of Rochester, N.Y., send an "Arnold Steam Sterilizer," intended for use *in laboratories*, for bacteriological investigations; *in hospitals*, for general sterilizing purposes; *in physicians' offices*, for sterilizing surgical dressings, instruments, clothing, etc., and *in the household*, for

sterilizing milk, drinking water, preparing foods for children, making and re-heating poultices, heating flannels for local applications, for steam and medicated inhalations, for disinfecting toys and clothing after infectious and contagious diseases, etc.

The apparatus maintains a uniform temperature of 212° Fahrenheit in every part of its sterilizing chamber, has been used in various laboratories of the country.

The apparatus is simple, serviceable and cheap.

Water is poured into the pan or reservoir whence it passes slowly through three small apertures into the shallow copper vessel beneath, becomes converted into steam and rises through the funnel in the centre to the sterilizing chamber above. Here it accumulates under moderate pressure at a temperature of 212° F. The excess of steam escapes about the cover, becomes imprisoned under the hood and serves to form a steam-jacket between the wall of the sterilizing chamber and the hood. As the steam is forced down from above and meets the air it condenses and drips back into the reservoir. The time required for sterilizing milk is from 30 to 45 minutes.

CORRESPONDENCE.

Antifebrin, or Acetanilid.

TO THE EDITOR:

Sir: In a communication to the REPORTER of Feb. 22, there was a discussion as to the relative values of antipyrin and antifebrin, considered from a point of money-value; and from the fact that the name of antipyrin is copyrighted, it was advised that antifebrin be given the preference.

In regard to the superior value of antifebrin over antipyrin, I think there is no doubt; as I indicated in a note to the *Medical Record*, Oct. 19, 1889.

In regard to the name being copyrighted, I wish to add that antifebrin is itself a copyrighted drug, almost as much so as antipyrin. Antefebrin is the name under which the chemical compound, acetanilid, is sold. Under this name its market value is almost three times that of acetanilid.

I should not like to depreciate the value of a drug because it was patented, if it had value not held by other drugs, but as antifebrin has no values that acetanilid has not; as both are exactly the same chemically and therapeutically, and as the one is so much cheaper, I see no reason why it should not be used exclusively in preference to the copyrighted antifebrin.

Yours truly,

HARVEY B. BASHORE, M. D.

West Fairview, Pa.,

Feb. 23, 1890.

[We agree entirely with the general principle involved in the letter published in the REPORTER, Feb. 22, and in that just given. But we think it right to add that, if a remedy can be better prepared by firms which protect their business interests by using a distinctive name for their products than by firms who do not adopt the plan, no sentiment should lead the medical profession to withhold from their patients the advantage to be gained by using the "trade-mark" article. If acetanilid can be obtained as good and pure as that sold under the name of "antifebrin," then the former should be preferred; if not, then a physician's sense of duty to his patients should lead him to employ the better drug.—EDITOR OF REPORTER.]

Opium Habit.

TO THE EDITOR.

Sir: It may prove a reminder to the medical expert to recall a pathognomonic sign of the opium habit, viz.: a look of shame akin to vacancy, when the victim of the habit has been unexpectedly visited. Of course the history of such cases, the symptoms, etc., are confirmatory of the diagnosis. The writer has noted five cases of this pernicious habit during a period of thirty years' practice: one subject was a learned college professor; three were physicians; and two were married women. One of the latter was the daughter of a physician, and the other was the wife of a physician. The professor became a prey to the most tormenting hallucinations. Amid his lucid moments he was eager to be relieved, but was powerless in himself to escape. Of the three physicians, two died at an early period of life with symptoms of general paresis, preceded by nervous apoplexy. One was once a respectable practitioner in Washington City, and the other of Fredericksburg, Va. The third is still living, and has been committed to a hospital for the insane. The two women are still cared for by their friends, with no hope of cure beyond palliating remedies.

Yours truly,

FREDERICK HORNER, M. D.,

Marshall, Farquier Co., Va.,

Feb. 27, 1890.

NOTES AND COMMENTS.

Implantation of Decalcified Bone Chips.

Dr. William B. Van Lennep, of Philadelphia, sends to the REPORTER a pamphlet giving an account of an apparently successful operation of implantation of bone chips. He says:

In the September number of the *American Journal of the Medical Sciences* there appeared an article by Dr. Nicholas Senn "on the healing of bone cavities by implantation of antiseptic decalcified bone." While reading this paper I saw a case I had operated on over two years ago, where a large cavity in the tibia had taken nearly eight months to heal by the slow process of granulation. The result is a deep depression and a weak cicatrix, which breaks down and ulcerates after every bruise. The attempt had been made to fill the cavity with blood clot, as had been suggested by Schede a short time before; but this failed. Senn says that the blood clot is too good a culture soil for germs; that the loss of blood, if a large clot is required, may be dangerous; that it may be insufficient, on the other hand, to fill the cavity. He also very justly criticizes the proposition of Neuber to turn down and tack flaps of the soft parts into bone cavities, because the flaps are apt to slough, and in certain cases much healthy bone has to be removed to allow of their being turned in. He proposes to fill the cavity, in place of the clot or the sponge, with chips of decalcified bone. These he prepares as follows: The fresh tibia of an ox is taken and cut across into sections about two inches thick. The medulla is cleaned out and the bone decalcified in dilute muriatic acid, which is frequently changed. The acid is then washed out and neutralized by a weak solution of caustic potash. Thin sections are made in the long axis of bone, which are kept in sublimated alcohol, 1 to 500.

I immediately prepared a tibia in this manner, and have since obtained some specimens like those used in Senn's experiments. They are not quite as completely decalcified as those I prepared and used.

I was about to operate on a young man for extensive necrosis of the femur, and, with his consent, determined to give this method a trial. There were two sinuses just above the knee, a large one on the inside and a small one on the outside, through both of which the rough bone could be readily felt. A number of bits had been discharged, and one large sequestrum seemed loose. Higher up, on the outer side of the thigh, was a deeply depressed, long, adherent cicatrix, resulting from a former similar trouble of several years' duration. The abscess had been incised, and nature allowed to complete the cure. The scar is weak and tender.

Operation, September 23, 1889. After the usual antiseptic precautions, the limb having been rendered bloodless by the Esmarch bandage, an incision was made up and down from the internal sinus, freely exposing the bone. Two large sequestra and a number of small pieces were removed, leaving a deep groove running from the internal condyle upward for about six inches, and ending in a pocket. Just below the latter was an opening through the bone to the sinus on the outer side. The rough places were rendered smooth with gouge and chisel, the whole suppurating area carefully and thoroughly scraped, and the inflamed soft parts freely excised with curved scissors. After washing out with hot water, strongly sublimated, twelve per cent. solution of chloride of zinc was applied with a brush; the irrigation was repeated, and iodoform was blown in. The chips, previously soaked in weak sublimate and dusted with iodoform, were taken from a disinfected towel and tightly packed into the whole cavity. There being no periosteum available with which to cover the chips, the soft parts over both openings were drawn together with buried catgut and superficial silk sutures. This was accomplished with difficulty, producing considerable tension, and a small aperture was therefore left on the inner side of the thigh for drainage. Iodoform dressings were applied, and the limb was done up on a posterior metal splint. The Esmarch tubing was then removed.

There was a smart fever the next day (103°) and good deal of oozing, the dressings becoming saturated with blood. They were changed, and the drainage opening was slightly enlarged to relieve tension. The bone chips could be seen entangled in a dark clot. The wounds closed by first intention, except at this point, which afterwards suppurated. The patient went to his home in the country on the twelfth day, returning to have the opening washed and dressed from time to time.

The bone chips have evidently done their work, as the contour of the limb is well pre-

served and the cicatrix is depressed only at the point mentioned. There must have been a new formation of bone, for a hard elevated lump can be felt instead of the deep groove. In its centre is a crater-like depression where the wound suppurated. Only two of the chips were discharged and found in the dressings.

The case was anything but favorable for implantation, and required most scrupulous scraping and disinfection, especially in the pocket at the upper end and the opening through the bone. There was no periosteum with which to cover the chips, and the soft parts were drawn together with great difficulty. The tension and the septic cavity caused me considerable anxiety, and when the temperature shot up, I feared that I would have to open the wound and allow healing to take place by the slow and deforming process of granulation. While the blood clot is used in the interstices between the chips, it is supported by them, and breaking down is further prevented by their being not only aseptic but antiseptic. For this reason they also tend to counteract the effects of any shortcomings in disinfection.

The result is certainly very satisfactory, healing being rapid and without deformity or tender scar. I feel that the case should be reported as one of the first since Senn's publication. Besides, it is our duty to put on record successes and failures with any new method in order to help define its value.

American Medical Association.

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Instruction in Hygiene.

A course of instruction in practical hygiene, under the charge of Dr. John S. Billings, assisted by Dr. A. C. Abbott, will be given in the Johns Hopkins University, Baltimore, during the months of March, April and May, 1890. The course began Monday, March 3, and will continue for four days in each week (Monday, Tuesday, Thursday and Friday), from 9 until 12 o'clock A. M., until Friday May 30. One hour each day will be given to demonstrating the methods to be employed in the day's work, the remaining two hours will be for the practice of the methods by the students.

The instruction will be given by lectures and practical work in the laboratory. A course of four lectures will be given by Dr. Billings, during April, on the subject of "Sewage Disposal." The practical work in the laboratory will comprise: investigation of the atmosphere, both physical, chemical and bacteriological; chemical and bacteriological investigation of water; physical, chemical and bacteriological investigation of the ground; inspection of milk and meat; studies upon ventilation and heating; practice in disinfection and sterilization, both chemical and thermal; inspection of ground for building sites; inspection of building materials; inspection of clothing materials.

Further particulars may be obtained from the Superintendent of the Johns Hopkins Hospital, North Broadway, Baltimore, Md.

Iowa State Medical Society.

The thirty-ninth annual session of the Iowa State Medical Society, will be held at Des Moines, Iowa, April 16–18, 1890. Officers: J. M. Emmert, Atlantic, President; G. F. Jenkins, Keokuk, First Vice-President; E. F. Clapp, Iowa City, Second Vice-President; C. F. Darnall, West Union, Secretary; J. W. Cokenower, Des Moines, Assistant Secretary; G. R. Skinner, Cedar Rapids, Treasurer.

Members of the medical profession of Iowa are invited to attend.

The Society is in a flourishing condition, and its sessions are always interesting and profitable. It will present this year an unusually good programme and anticipates an enjoyable occasion. Measures of importance will be presented and discussed relative to the enlargement and extension of the benefits of State and auxiliary co-operation. There are in Iowa about 3,000 regular physicians, and only a small percentage of them are members of the State Medical Society. The fifty local societies of the State have a membership of 1,500, are in good working order, and it is to the interest of each that it have full representation at this meeting. An apppeal is therefore made that each county or district organization send a complete delegation, and that the old members assemble once more. Those who have failed to retain their permanent membership can be reinstated by paying their arrears, or by coming as delegates. All railroads doing business in Iowa have granted the usual one and one-third rates, if the conditions stated elsewhere are complied with.

Any further information will be cheerfully given by the Secretary, Dr. C. F. Darnall, West Union, or by the chairman of the Committee of Arrangements, Dr. L. Schooler, Des Moines.

Death from Chloroform.

The *Lancet*, February 22, 1890, reports a death from chloroform; the patient was a young woman, twenty-four years old, admitted to a hospital in Exmouth, to undergo an operation for lupus affecting the face. She was placed under the influence of chloroform, a Skinner's inhaler being used, and about twenty drops being allowed to fall upon the flannel. She inhaled for seven or eight minutes, when she was considered fit for operation; the face piece was removed and the scraping of the nose was commenced. In about three minutes after this the administrator saw signs of returning consciousness and gave more chloroform; "then," the report says, "she suddenly stopped breathing." The tongue was seized with forceps and withdrawn from the mouth, while Silvester's method of artificial respiration was carried out and continued for half an hour. The condition of the heart was not noticed at the moment of respiratory failure. Half an hour's performance of artificial respiration was fruitless. At the necropsy, conducted by an independent authority, the heart was examined, and pronounced sound, and it was stated to give *post-mortem* evidence "that the heart acted after breathing stopped." The patient had had chloroform successfully administered on several occasions before, and had given no anxiety.

Investigation of Electrictity for Fibroids.

The Philadelphia County Medical Society has appointed a committee consisting of Drs. Parvin, Hirst, Montgomery, Massey and Baldy to conduct a series of observations relative to the effect of electricity in fibroid tumors of the uterus.

The committee requests the profession at large to send any case of the kind they may be able to the Gynecological Out-patient Department of the Pennsylvania Hospital, Mondays, Wednesdays and Fridays at 12 o'clock.

Strangulated Hernia and Pneumonia.

Pneumonia not infrequently follows the reduction of incarcerated hernia, and the ninety-third volume of the *Archiv. für Klinische Chirurgie* (p. 501) contains an interesting contribution from the pen of Dr. Ed. Pietrzikowski in which an effort is made to prove the view, first advanced by Professor Gussenbauer, viz.: that the pneumonia which follows the reduction of hernia is of an embolic or hemorrhagic nature: the emboli being formed in the blood-vessels of the imprisoned gut, and diffusing themselves throughout the circulation after liberation of the latter. From his clinical observation, which is based on the history of 401 cases, the author concludes that the lung complication arises in about twenty-five per cent. of all cases, no matter whether the reduction is effected by taxis or by herniotomy, and as a rule only where the blood stasis in the strangulated intestine is not so complete as to be entirely isolated from the circulation after the operation. The author also approached this question from its experimental side by producing artificial herniæ in fifteen dogs. After these were reduced by herniotomy, he found that in ten instances the lungs contained hemorrhagic infarcts, while in six the liver was similarly affected—all of which was believed to be due to the absorption of thumbi from the blood-vessels of the liberated bowel.

NEWS.

—The grip has made its second appearance at Hazleton, Pa. On March 11, forty cases were reported.

—Influenza is raging in Teheran, causing 70 deaths daily. Several members of the Shah's household are among the sufferers.

—Telegraphic communications from Bombay, dated March 13, state that an epidemic resembling influenza is spreading in India.

—A dramatic poem, by Dr. S. Weir Mitchell, entitled "The Masque," was produced at a Philadelphia theatre on March 8, and very favorably received.

—There is great excitement in the vicinity of Fountain Head, Sumner county, Tennessee, over the appearance of spotted fever or meningitis. There have been seven deaths, and there are several new cases.

—The third International Congress against the Abuse of Alcohol will be held in Christiania, Sweden, from September 3 to 5, 1890. Dr. Forel, of Zurich, will act as President. All communications should be addressed to the General Secretary, Dr. G. E. Bentzen, in Christiania.

—At a meeting of the Board of Charities and Correction, Dr. Daniel E. Hughes was elected Chief Resident at the Philadelphia Hospital, vice Dr. Wells, resigned. The resignation of Dr. W. E. Hughes as examiner of insane cases was received, and Dr. Judson Daland was elected to the position.

—The fourth annual meeting of the Visiting Nurse Society, of Philadelphia, was held March 7. Mrs. J. Dundas Lippincott presided, and the report of the managers was presented by the Secretary, Mrs. Wm. F. Jenks. The reports showed that 8,492 visits had been made by the nurses to over 600 patients.

—The Woman's Medical College of Pennsylvania held its Thirty-eighth Annual Commencement at the Academy of Music, March 13. Forty graduates received their diplomas. The degrees were conferred by Mr. T. Morris Perot, President of the College, and an address to the graduates delivered Dr. William H. Parish.

—The North Philadelphia Hospital obtained a charter March 5, the incorporators being Drs. F. S. Bower, F. V. Van Artsdalen, Peter Hooper, J. W. Brockbank, J. K. Cassel, David Moffet and W. G. Howell. The large three-story stone building, 3328 North Broad street, containing 15 rooms, is being put into proper condition for hospital purposes. Six beds will be prepared for use immediately on the opening of the institution, which will probably be during the present month.

—Miss Clara Barton, President of the American National Association of the Red Cross, has been investigating the statements concerning the suffering and destitution existing among the pioneer settlers of North and South Dakota, with a view of aiding those in need of help. She has ascertained that there is urgent necessity for immediate action, and now appeals to the public for cash subscriptions, large enough to meet every emergency. She has information that there are at least 5,000 people dependent, and many more who, though they have provisions for themselves, need feed for their stock. H. T. Helgesen, State Commissioner of Agriculture, Grand Forks, N. D., will distribute all funds sent to his address.